APPALACHIAN

TRANSECT

University of Maryland - Vegetation Continuous Fields
MODLAND VALIDATION REVIEW
17 November 1999

Earth Science Enterprise
Commercial Remote Sensing Program

POSITIVE SYSTEMS

UNIVERSITY OF MARYLAND
18 56
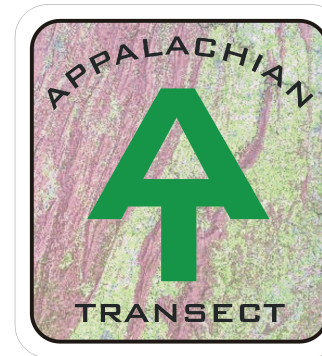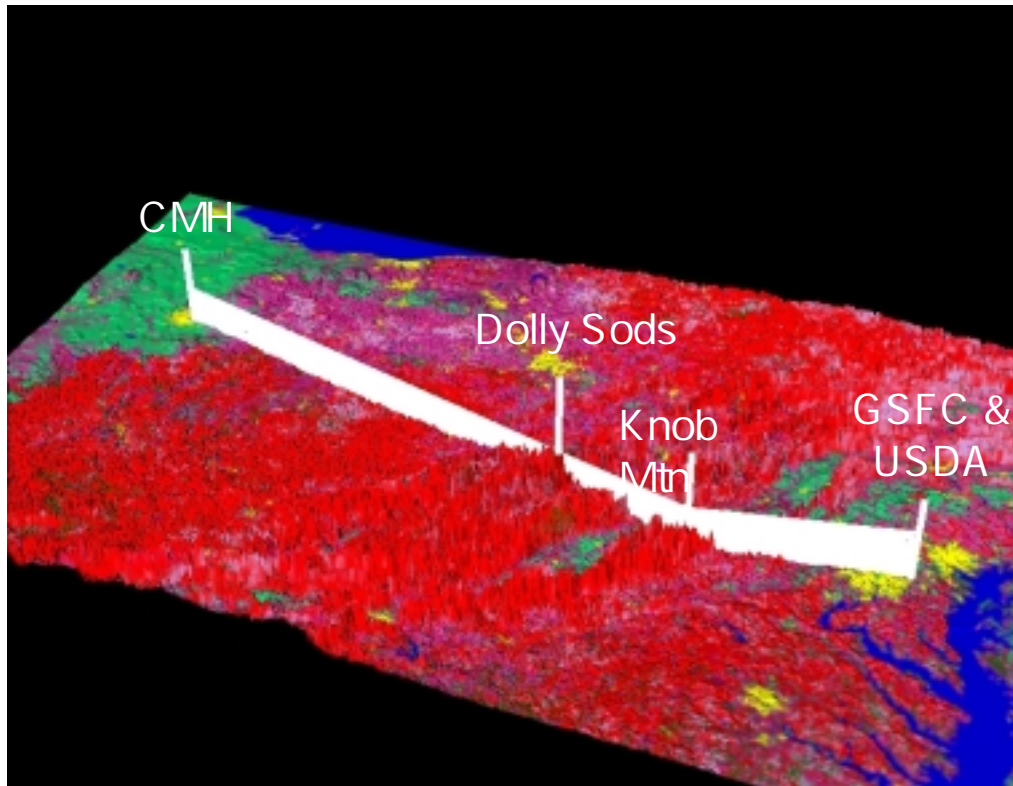
Acquisition Strategy:
- Leaf Off: 27 March - 7 April, 2000 *
- Leaf On: 24 July - 4 August, 2000
  * L7 will be used to verify that
    snow cover has abated.

CMH
Dolly Sods
Knob Mtn
GSFC & USDA

Way Points:

- GSFC Buildings 32 & 33, Greenbelt, MD (38d59'34"N 76d50'23"W)
- USDA-ARS EOS Core Site, Beltsville, MD (39d01'50"N 76d50'50"W)
- Knob Mountain, Shenandoah National Park, VA (38d43'44"N 78d20'56"W)
- Dolly Sods Wilderness, WV (39d00'00"N 79d22'30"W)
- CMH Airport, Columbus, OH (39d59'46"N 82d53'20"W)

Visualizations courtesy of Paul Davis/CRESS

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UMD 1km Land Cover Classifications

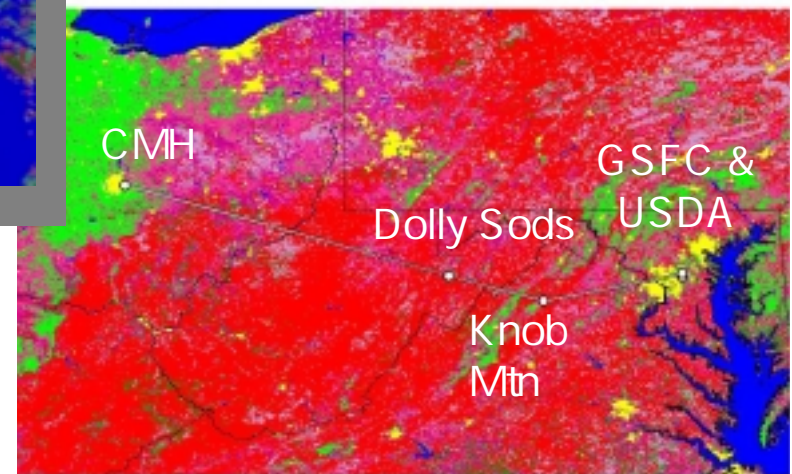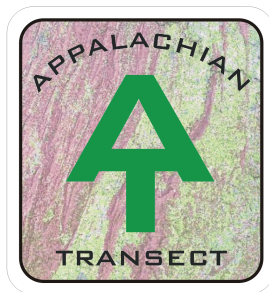| Water | Mixed Forest | Closed Shrubland | Cropland |
| Evergreen Needleleaf | Woodland | Open Shrubland | Bare Ground |
| Deciduous Broadleaf | Wooded Grassland | Grassland | Urban & Built |

Image example courtesy of Positive Systems. Area shown is near Cowetta, GA.

Instrument: ADAR System 5500
Spatial Resolution: 1m
Swath Width: 750m
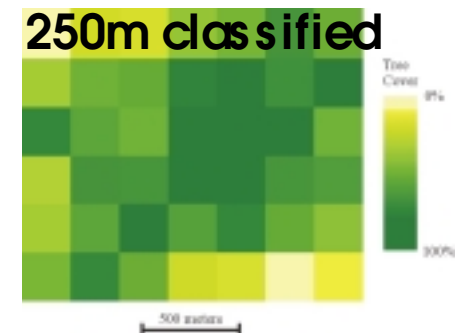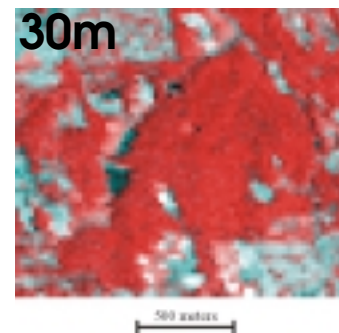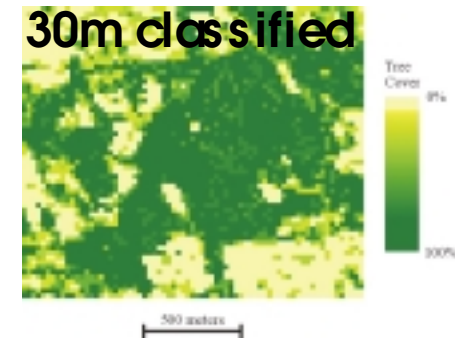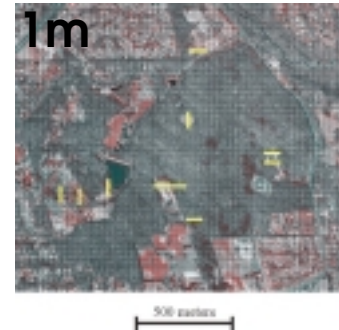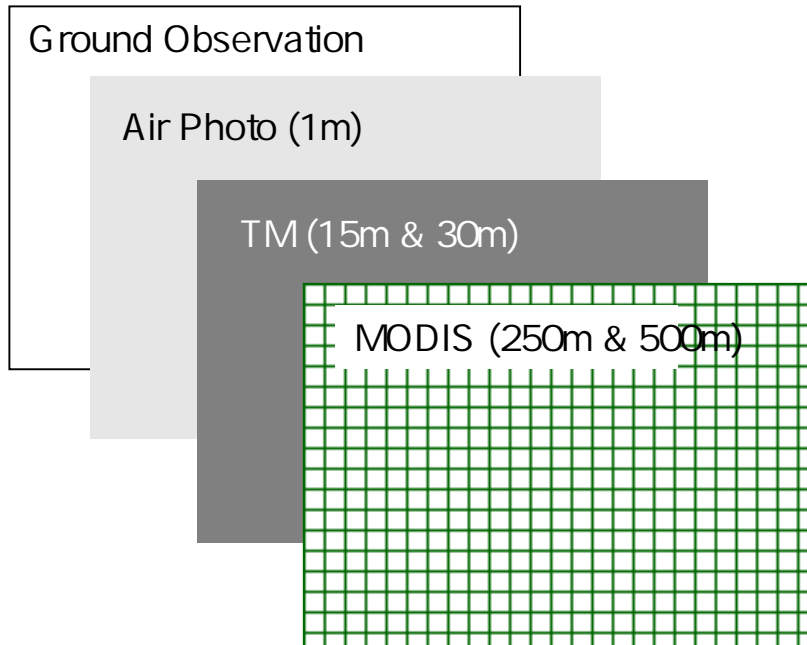Spectral Resolution: 450-515nm (blue); 525-605nm (green); 630-690nm (red); 750-900nm (NIR)
Quantization: 8 bit
Geocoding: On-board GPS scene center accurate to +/- 100m

Vegetation Continuous Fields
Validation using Appalachian Transect

Ground Observation

Air Photo (1m)

TM (15m & 30m)

MODIS (250m & 500m)

1m

30m classified

30m

250m classified

- Coordinated observations from ground, air, and satellite.
- Provides the opportunity to examine scaling issues.
- Example shows prototype from Summer '99 field activities.

(see www.geog.umd.edu/landcover/cress/landval.htm for details)